

Health Care Financing Project Reports

U.S. Department of Health and Human Services
Health Care Financing Administration
Office of Research and Demonstrations

Number 2
August 1985
HCFA Pub. No. 03214

Case management and prepaid capitation for delivery of dental services

Overview

The Massachusetts Dental Project (MDP) was a 4-year research demonstration study funded by the Health Care Financing Administration's Office of Research and Demonstrations and by the Massachusetts Department of Public Welfare (MDPW). The principle investigators for MDPW were Debbie Medalia and Joe Boffa, and the project officers were Shelagh Smith and Trudi Galblum in the Office of Research and Demonstrations.

The goal of the study was to assess the capitated financing method of delivering dental services to Aid to Families with Dependent Children (AFDC) recipients. Data collection on the dental needs and services provided to enrolled members was conducted from July 1981 through June 1983.

Methodology

The MDPW contracted with 10 dental practices to provide dental services to approximately 2,300 AFDC recipients who enrolled in the research study. The MDP sites included three community health centers, one group practice, and six private dental offices. The dentists were responsible for delivering, or assuring the provision of, all dental care covered under the MDP dental plan. Covered services provided by MDP were essentially those that could be provided by a general dentist.

Enrollees were offered three incentives to join the project:

- The ability to receive more than one annual cleaning and fluoride treatment (Medicaid fee-for-service pays for these services annually for each utilizer).
- Immediate provision for certain dental services that would otherwise require MDPW prior approval.

- Guaranteed eligibility for the duration of the study, regardless of Medicaid eligibility. Waivered status, as this benefit was often called, was primarily intended to assure a stable study population for longitudinal analysis, but was also seen by enrollees as an incentive to participate.

Two control groups of Medicaid families with children were selected for comparison with the MDP study group. Control Group I consisted of fee-for-service Medicaid families who obtained one or more dental services from 1 of the 10 MDP providers during the research period. Control Group II consisted of Medicaid families who received dental care at any of 24 non-MDP matched providers. Comparisons of service delivery patterns and costs were made between the MDP study group and the control groups.

Capitation rate

The capitation rate for MDP's dentists was based on a chair-hour formula that took into consideration the actual chair-hour cost of providing services to the enrolled population. The service mix on which the rate was based was from 1977 claims data for AFDC utilizers. Because Medicaid did not have data from a capitation program, the use of fee-for-service claims data was the best estimate of expected service usage. The capitation rate also assumed a higher annual utilization rate for the study population than what would be experienced by fee-for-service utilizers; the increase in utilization was expected because of the marketing of MDP. The capitation rate approved by the Massachusetts Rate Setting Commission was \$4.20 per enrollee per month. With 2 years of actual study data from this Medicaid capitation program, MDP was able to revise its formulation of the capitation rate to reflect the project experience. The capitation rates were reduced in subsequent years.

Findings

The MDP also found shifts in the mix of services provided to its enrolled members when compared to the fee-for-service control groups. Utilizers tended to receive more preventive services, even when adjusting for differences in coverages between the two payment



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systems. Utilizers of MDP received fewer diagnostic X-rays overall than did the control group patients.

In addition to cost and service-mix considerations, MDP analyzed both enrollee and dental provider satisfaction with the capitation financing mechanism. Responses from the enrollee satisfaction surveys indicated overwhelming satisfaction with the quality of care received from MDP dentists. Questionnaire respondents claimed that their primary reason for joining the study was the guaranteed eligibility for MDP coverage regardless of Medicaid eligibility. Interestingly, however, almost one-half of the respondents who selected this reason for joining MDP stated they would have enrolled without such a guarantee. Dentists of the project preferred the capitation financing system over the Medicaid fee-for-service system because of the regular monthly payments, greater freedom in clinical decisionmaking (as a result of the elimination of the need for prior authorization for many covered services), and reduction in paperwork requirements.

This project found that yearly Medicaid savings of approximately 10 percent of the Medicaid fee-for-service expenditures per user could be achieved. An unanticipated finding of this research study was that the incidence of dental caries among children has dropped dramatically since 1977. This decline occurred not only among AFDC utilizers in MDP and the two control groups, but has also been found to be true on a national level. Additionally, MDP found that the original estimated utilization rate for chair time consumption of

94 dentist minutes per year was too high. Actual number of dentist minutes per patient year was 55. This decline was attributed to the national decline in dental caries.

Conclusions

The following are some of the important conclusions from this research study:

- Capitation financing of dental care for AFDC recipients can potentially result in cost savings for Medicaid on both a short- and long-term basis.
- Data indicate a shift in service mix, with MDP enrollees receiving more preventive services, fewer diagnostic X-rays, and fewer multisurface restorations than the control group.
- Enrollees were satisfied with the quality of care received from the MDP providers and found the offer of guaranteed eligibility for MDP an important motivation for joining the study.
- Participating providers preferred capitation financing to the existing Medicaid fee-for-service program.

Related Publications

The final report entitled, "Case Management and Prepaid Capitation as a Cost-Effective and Improved Method of Delivery of Dental Services" is available only from the National Technical Information Service, Document Sales, 5285 Port Royal Road, Springfield, Va. 22151. (703) 487-4650 Accession Number PB85-146116/AS. The cost for the printed publication is \$25.00, or \$4.50 for microfiche.